STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

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RUMFORD POWER INC.	)	**DEPARTMENT**
OXFORD COUNTY	)	**FINDINGS OF FACT AND ORDER**
RUMFORD, MAINE	)	**AIR EMISSION LICENSE**
A-724-70-D-R/A	)	

After review of the air emission license application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

Rumford Power Inc. (RPI) submitted an application for a renewal Part 70 air emission license June 27, 2007. RPI is a nominally-rated 265 megawatt (MW) electric power plant utilizing a combustion turbine designed to operate on natural gas followed by a heat recovery steam generator (HRSG) to produce superheated steam. RPI is located in the Rumford Industrial Park off Route 108 approximately two miles south of the commercial centers of Rumford and Mexico. The facility supplies electricity to the regional grid through an interconnection with Central Maine Power (CMP) transmission lines.

FACILITY	RUMFORD POWER INC. (RPI)
LICENSE NUMBER	A-724-70-D-R/A
LICENSE TYPE	Part 70 License Renewal
NAICS CODES	221112
NATURE OF BUSINESS	Electric power generation
FACILITY LOCATION	Rumford, Maine
DATE OF LICENSE ISSUANCE	**February 19, 2009**
LICENSE EXPIRATION DATE	**February 19, 2014**

B. Emission Equipment

The following emission units are addressed by this Part 70 License Renewal:

EMISSION UNIT ID	UNIT CAPACITY	FUEL TYPE
Combustion Turbine	1975 MMBtu/hr * (24-hour avg,)	Natural gas
Diesel Fire pump	1.5 MMBtu/hr	Diesel fuel
Water heater	4.5 MMBtu/hr	Natural gas
Standby Generator **	8.2 MMBtu/hr	Diesel fuel

* Combustion Turbine unit rating of 1975 MMBtu/hr is based on the higher heating value due to increased fuel burning associated with low ambient air temperatures

** The standby generator has not been installed, however RPI would like the option for future installation

RPI has additional insignificant activities which do not need to be listed in the emission equipment table above. The list of RPI's insignificant activities can be found in the Part 70 license renewal application and cross-referenced with Appendix B of 06-096 CMR 140 of the Department's Regulations.

C. Revision Description

This Part 70 air emissions license renewal includes changes that qualify as minor modifications:

- An increase in the maximum licensed firing capacity from 1950 MMBtu/hr to 1975 MMBtu/hr (based on a 24-hour block average). The change does not represent any change in the design of the turbine, but recognizes the increased fuel burning capacity associated with low ambient air temperatures. The previously licensed design capacity of 1950 MMBtu/hr was based on GE turbine specifications at ambient temperature of 15°F. The lb/hour emission rates have been adjusted to reflect this slight increase in design capacity.
- RPI requests to remove the need to monitor the sulfur content of incoming natural gas, unless there is a change in supplier, per the revised sections of 40 CFR Part 60 Subpart GG.

D. Application Classification

The application for RPI does include changes to the current air emission license. The changes included in the application are considered major depending on whether or not the future allowable emissions are greater than the significant emission levels, as defined in 06-096 CMR 100. For RPI, actual emission increases result from the increase in maximum capacity to 1975 (on a 24-hour block average for up to 1200 hours per year); however, no increase in licensed allowed ton per year emission limits is requested. Furthermore, the actual emissions increases are not above significant emission level thresholds, with a total criteria pollutant increase of less than three tons per year. Therefore, the license is considered to be a Part 70 License renewal, along with a minor modification, issued under 06-096 CMR 140 of the Department's regulations for a Part 70 source.

II. BEST PRACTICAL TREATMENT

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent best practical treatment (BPT), as defined in 06-096 CMR 100 of the Air Regulations. Separate control requirement categories exist for new and existing equipment as well as for those

sources located in designated non-attainment areas. Descriptions of the applicable requirements are provided below under the appropriate headings.

Project Description

The generation of electricity by a combined cycle combustion turbine generator set can be described as follows: combustion air enters through the inlet air filters and the inlet air cooler coils, and compressed by the turbine-driven compressor. Fuel and compressed air are mixed and burned in the combustion section of the turbine, creating a high-pressure, hot gas. This gas is then expanded through the three-stage power turbine section where most of its thermal energy is converted to work as it turns the turbine. The turbine drives both the air compressor and the electric generator.

The combustion turbine is a General Electric (GE) product rated at approximately 178 MW at 45°F and 191 MW at 15°F, and is designed to operate on natural gas with a currently licensed maximum heat input of 1,950 MMBtu/hour. However, Maine's ambient temperatures can often be lower than 15°F during the winter months. RPI has found increased fuel burning associated with low ambient air temperatures, therefore the maximum licensed firing rate capacity will increase from 1950 MMBtu/hr to 1975 MMBtu/hr.

The turbine exhaust is nearly at atmospheric pressure, but is relatively hot at around 1,110°F. Most of this heat will be recovered in the heat recovery steam generator (HRSG) by passing the gas over water and steam-filled tubes to make high pressure steam. The HRSG is a three-pressure, natural circulation, reheat unit with no supplemental fuel firing. Within the HRSG, the exhaust gas passes through a Selective Catalytic Reduction (SCR) unit, with an accompanying ammonia (NH_3) injection grid for further NOx reduction. Exhaust gas leaving the air pollution control system then exits to the atmosphere through a 150-foot exhaust stack. Steam generated in the HRSG is expanded through a steam turbine generator, providing an additional 93 MW of electricity at 45°F. After extracting all usable heat energy, the steam is sent to the air-cooled condenser, where it condenses and enters the hotwell as a liquid. The condensed steam, which is now referred to as condensate, is pumped back to the HRSG where it is reused as boiler makeup.

B. Emission Units BPT

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

Main Turbine Generator BPT

The RPI facility operates a combustion turbine, which consists of the following major mechanical plant components:

- An advanced technology natural gas-fired turbine.
- Advanced dry low nitrogen oxide (DLN) combustor that achieves low nitrogen oxide (NOx) levels without consuming water. This combustor firing natural gas is combined with selective catalytic reduction (SCR).
- High-pressure reheat, superheated steam generation, with high-efficiency, tandem compound turbine for maximum combined cycle efficiency. There will be no auxiliary gas firing of the heat recovery steam generator (HRSG).
- Air (dry)-cooled condenser system which provides for cycle cooling without the need for consuming the large quantities of water and the continuous water vapor plume associated with conventional systems.
- The plant will fire only natural gas fuel, eliminating higher levels of air emissions typically associated with backup oil firing. There is no need to deliver or store fuel oil.

The turbine is subject to New Source Performance Standards (NSPS), 40 CFR Part 60, Subpart GG - Standards of Performance for Stationary Gas Turbines, for which construction is commenced after October 3, 1977.

40 CFR Part 60, Subpart GG establishes the following limits:
Pursuant to 40 CFR Part 60.333 SO_2 is limited to (a) 0.015% by volume @ 15% O_2 on a dry basis or (b) the fuel sulfur content shall not exceed 0.8% by weight.

Pursuant to 40 CFR Part 60.332(a)(1) NOx is limited based on the following equation:

$$NOx - STD = 0.0075*(14.4/Y) + F,$$

Where STD is the allowable NOx emissions (percent by volume at 15% O_2 and on a dry basis), Y is a function of the manufacturer's rated load (kilojoules per watt hour), and F is a function of the fuel-bound nitrogen.

The NSPS for gas turbines, 40 CFR Part 60 Subpart GG has recently undergone revisions to its monitoring requirements. The revisions remove the requirement to test pipeline natural gas for sulfur content and exempts facilities with NOx CEMS from nitrogen content monitoring. RPI will comply with the revised NSPS.

A thorough Best Available Control Technology (BACT) analysis for each of the pollutants for each piece of equipment was done during the initial licensing in 1998. The New Source Review 06-096 CMR 115 air emission license, A-724-71-A-N, provides a detailed description of this BACT analysis. The following BPT analysis summarizes the results of that analysis:

- Emissions from the combustion turbine are reduced by controls that were determined to represent BACT when the unit was initially licensed in 1998.
- NOx emissions are controlled using GE's dry low NOx combustor technology in combination with selective catalytic reduction (SCR) to achieve an emission limit of 3.5 ppmvd corrected to 15% O_2. At the time of the permit this emission level represented the lowest limit required on any similar sized source in Maine.
- The turbine is licensed to fire natural gas only - no supplemental oil firing. Thus emissions of sulfur dioxide are controlled well below what is required of other sources of similar age.
- Emissions of CO, VOC and particulate matter are minimized by the efficient dry low NOx combustor design of the turbine and the emission rates are comparable to other similarly sized projects burning natural gas. Thus the emissions from the turbine are being controlled by technologies that represent best practical treatment.

Streamlining

Opacity

RPI accepts streamlining for opacity requirements. 06-096 CMR 101, Section 2(A)2 of the Department's regulations and Best Practical Treatment (BPT) requirements are applicable. The Best Practical Treatment (BPT) opacity limit is more stringent. Therefore, only the more stringent BPT opacity limit is included in this license.

Based on best management practices and the type of fuel for which the turbine generator was designed, it is unlikely that the turbine will exceed the opacity limits. Therefore, periodic monitoring by the source for opacity in the form of visible emission testing is not required. However, neither the EPA nor the State is precluded from performing its own testing and may take enforcement action for any violations discovered.

Particulate Matter
RPI accepts streamlining for particulate matter requirements. 06-096 CMR 103 of the Department's regulations and BPT requirements are applicable. The BPT particulate matter limit is more stringent. Therefore, only the more stringent BPT particulate matter limit is included in this license.

Sulfur Dioxide
RPI accepts streamlining for sulfur dioxide requirements. 40 CFR §60.333 and 06-096 CMR 106 of the Department's regulations are applicable; however BPT requirements are more stringent. Therefore, only the more stringent BPT sulfur dioxide limit is included in this license.

Nitrogen Oxide
The NSPS establishes a nominal NOx emission limit for RPI of 75 ppmdv at 100% load. Subpart GG also limits the fuel sulfur content to no more than 0.8% by weight. While the NSPS does apply, the proposed BPT is more stringent; therefore, compliance with BPT will insure compliance with the NSPS.

Back-up Diesel Generator BPT

RPI proposes to install an emergency standby diesel-fired generator rated at 900 kW (8.2 MMBtu/hr). An Emergency Generator is defined as any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary engines used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary engines used to pump water in the case of fire or flood. Stationary engines used to supply power to an electric grid or that supply power as part of a financial arrangement with another entity are not considered to be emergency engines.

The Standby Generator had been requested since RPI was first licensed, however the unit was not installed and will therefore be subject to New Source Performance Standards 40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.

A summary of the BPT analysis for the Standby Generator (900 kW) is the following:

1. Standby Generator shall fire only diesel fuel with a maximum sulfur content not to exceed 500 ppm.

2. Beginning October 1, 2010, Generator #1 shall fire only diesel fuel with a maximum sulfur content not to exceed 15 ppm.
3. Standby Generator shall be limited to 100 hr/yr of operation for maintenance checks and readiness testing. Generator #1 shall be limited to 500 hours per year of total operation. Both of these limits are based on a 12- month rolling total. Compliance shall be demonstrated by a written log of all generator operating hours.
4. Standby Generator shall be equipped with a non-resettable hour meter.
5. 06-096 CMR 103 regulates PM emission limits. The PM_{10} limits are derived from the PM limits.
6. NO_x, CO, and VOC emission limits are based upon AP-42 data dated 10/96.
7. Standby Generator is additionally subject to the PM, CO, and NO_x + VOC emission limitations set forth in 40 CFR 60, Subpart IIII.
8. Facility shall operate and maintain Standby Generator in accordance with the manufacturer's written instructions. Facility shall not change settings that are not approved in writing by the manufacturer.
9. Visible emissions from the Standby Generator shall each not exceed 20% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period.

Diesel Fire Pump

The diesel fire pump, originally installed in 1998, is limited to low sulfur diesel oil with a maximum sulfur content of 0.05% by weight. Emissions of other pollutants are estimated based on EPA AP-42 "Compilation of Air Pollutant Emission Factors". The combination of low sulfur oil and proper equipment operation represent best practical treatment. RPI's diesel fire pump was purchased prior to July 11, 2005 and manufactured prior to April 1, 2006. Therefore, this generator is not subject to New Source Performance Standards 40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.

Water Bath Heater

The water bath heater is a natural gas fired heater with a rated capacity of 4.5 MMBtu/hr. It was originally licensed on February 23, 2000 as Amendment #1 to RPI initial air emission license, A-724-71-A-N. Since the heater combusts only natural gas, its emissions are very low compared to other units of similar size and the emissions were found to represent best available control technology. Thus its current configuration represents best practical treatment at this time.

C. Periodic Monitoring

Periodic monitoring shall consist of recordkeeping of fuel use, air inlet temperature, and electric load level. RPI shall combust only natural gas in the turbine generator. Sulfur content monitoring of natural gas had been licensed and conducted semiannually, as approved through an EPA letter dated December 18, 2002. However, per the revised sections of 40 CFR Part 60 Subpart GG, future need to monitor the sulfur content of incoming natural gas will not be necessary unless there is a change in supplier.

RPI shall meet NSPS 40 CFR Part 60.333 (a) not exceed an SO_2 emission rate of 0.015% by volume @ 15% O_2 on a dry basis, or (b) shall not burn liquid fossil fuel containing over 0.8 percent sulfur by weight as fired in the turbine. RPI shall operate monitors and record the following as specified for the turbine:

Periodic Monitoring for the Combustion turbine	Monitor	Record
Turbine natural gas firing rate	flow meter	Once per hour
Electric load level	electronic monitor	Once per shift
Turbine air inlet temperature	temp probe	Once per shift
Catalyst bed temperature	temp probe	Once per shift

Compliance Assurance Monitoring (CAM) Applicability

RPI is required to maintain and operate CEMs for CO, NOx, and ammonia, therefore the CEMs shall be used to satisfy the CAM requirements as required by 40 CFR Part 64 § 64.3(d)(1). The appropriate CAM requirements are met by RPI's current monitoring requirements.

D. Emissions Standards

Combustion Turbine
Emissions from the combustion turbine (based on a maximum heat input of 1975 MMBtu/hr) shall not exceed the following limits when firing natural gas in the turbine generator, except during startup/shutdown:

Pollutant	Load	ppmdv	ppmdv avg time	lb/hr	Control Technology
PM	All	--	--	13.8	Natural gas only
PM_{10}	All	--	--	13.8	Natural gas only
SO_2	All	--	--	10.9	Natural gas only (2 gr/100 scf)

NOx	All	3.5 (corrected to 15% O_2)	24 hr block avg	25.3	DLN Technology & SCR
CO	All	15 (corrected to 15% O_2)	24 hr block avg	53.9	Good Combustion & GE DLN technology
VOC	All	--	--	3.1	Good Combustion control
Ammonia	All	10 (corrected to 15% O_2)	24 hr block avg	26	--

- Compliance with the PM and PM_{10} lb/hour emission limits shall be determined through stack test using EPA Methods 1-5.
- Compliance with the SO_2 lb/hour emission limit shall be demonstrated by firing rate and by fuel sample analysis of the natural gas' sulfur content as required by NSPS Subpart GG.
- Compliance with the NOx, CO, and ammonia ppmdv emission limits shall be demonstrated by the use of continuous emission monitors (CEMs). The NOx, CO, VOC, and ammonia lb/hour emission limits shall be demonstrated through stack testing.
- Compliance with the visible emission limit shall be demonstrated by EPA Method 9.

Start-up/Shutdown

RPI was required through its original air emission license to propose emission limits to the Department to be applied during startup and shutdown periods. Such limits were based on emission monitoring and/or stack test conducted during startup/shutdown periods between 1999-2002. RPI shall meet the following numerical limits:

- CO emissions during the periods of startup and shutdown shall not exceed 1000 ppmvd, corrected to 15% O_2 averaged over the duration of the startup/shutdown (300 minutes for startup and 60 minutes for shutdown).
- NOx emissions during the periods of startup and shutdown shall not exceed 90 ppmvd, corrected to 15% O_2 averaged over the duration of the startup/shutdown (300 minutes for startup and 60 minutes for shutdown).

The duration of the startup period is defined in Condition (29) of the Order Section.

Facility Emissions

Total Allowable Annual Emissions for the Facility
(used to calculate the annual license fee)

Equipment	PM	PM_{10}	SO_2	NO_X	CO	VOC
Gas Turbine	60.0	60.0	46.4	109.5	233.0	13.6
Fire Pump (500 hours/yr)	0.07	0.07	0.01	1.0	0.21	0.08
Water Bath Heater	0.2	0.2	0.1	1.9	1.6	0.1
Generator (500 hours)	0.04	0.04	0.08	3.4	0.10	0.09
TOTALS	**60.3**	**60.3**	**46.6**	**115.8**	**234.9**	**13.9**

III. AMBIENT AIR QUALITY ANALYSIS

The minor modifications requested by RPI will not increase emissions above significance levels. The ambient air quality analysis performed for RPI in Air Emission License A-724-71-A-N, issued May 7, 1998, which demonstrated compliance with Maine Ambient Air Quality Standards and Class I and Class II Increments, is sufficient for this Part 70 Air Emission License renewal.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that emissions from this sources:

- will receive Best Practical Treatment;
- will not violate applicable emissions standards
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants the Part 70 License A-724-70-D-R/A pursuant to 06-096 CMR 140 and the preconstruction permitting requirements of 06-096 CMR 115 and subject to the standard and special conditions below.

All federally enforceable and State-only enforceable conditions in existing air licenses previously issued to RPI pursuant to the Department's preconstruction permitting requirements in 06-096 CMR 108 or 115 have been incorporated into this Part 70 license, except for such conditions that MEDEP has determined are obsolete, extraneous or otherwise environmentally insignificant, as explained in the findings of fact accompanying this permit. As such the conditions in this license supersede all previously issued air license conditions.

Federally enforceable conditions in this Part 70 license must be changed pursuant to the applicable requirements in 06-096 CMR 115 for making such changes and pursuant to the applicable requirements in 06-096 CMR 140.

For each standard and special condition which is state enforceable only, state-only enforceability is designated with the following statement: **Enforceable by State-only**.

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

STANDARD STATEMENTS

(1) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both; [06-096 CMR 140]

(2) The Part 70 license does not convey any property rights of any sort, or any exclusive privilege; [06-096 CMR 140]

(3) All terms and conditions are enforceable by EPA and citizens under the CAA unless specifically designated as state enforceable. [06-096 CMR 140]

(4) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license; [06-096 CMR 140]

(5) Notwithstanding any other provision in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 CMR 140]

(6) Compliance with the conditions of this Part 70 license shall be deemed compliance with any Applicable requirement as of the date of license issuance and is deemed a permit shield, provided that:

A. Such Applicable and state requirements are included and are specifically identified in the Part 70 license, except where the Part 70 license term or condition is specifically identified as not having a permit shield; or

B. The Department, in acting on the Part 70 license application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the Part 70 license includes the determination or a concise summary, thereof.

Nothing in this section or any Part 70 license shall alter or effect the provisions of Section 303 of the CAA (emergency orders), including the authority of EPA under Section 303; the liability of an owner or operator of a

source for any violation of Applicable requirements prior to or at the time of permit issuance; or the ability of EPA to obtain information from a source pursuant to Section 114 of the CAA.

[06-096 CMR 140]

(7) The Part 70 license shall be reopened for cause by the Department or EPA, prior to the expiration of the Part 70 license, if:

A. Additional Applicable requirements under the CAA become applicable to a Part 70 major source with a remaining Part 70 license term of 3 or more years. However, no opening is required if the effective date of the requirement is later than the date on which the Part 70 license is due to expire, unless the original Part 70 license or any of its terms and conditions has been extended pursuant to 06-096 CMR 140;

B. Additional requirements (including excess emissions requirements) become applicable to a Title IV source under the acid rain program. Upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the Part 70 license;

C. The Department or EPA determines that the Part 70 license contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Part 70 license; or

D. The Department or EPA determines that the Part 70 license must be revised or revoked to assure compliance with the Applicable requirements.

The licensee shall furnish to the Department within a reasonable time any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the Part 70 license or to determine compliance with the Part 70 license.

[06-096 CMR 140]

(8) No license revision or amendment shall be required, under any approved economic incentives, marketable licenses, emissions trading and other similar programs or processes for changes that are provided for in the Part 70 license. [06-096 CMR 140]

STANDARD CONDITIONS

(1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions and this license (38 M.R.S.A. §347-C);

(2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in 06-096 CMR 140; [06-096 CMR 140]

(3) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request; [06-096 CMR 140]
Enforceable by State-only

(4) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to 38 M.R.S.A. §353.

(5) The licensee shall maintain and operate all emission units and air pollution control systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions; [06-096 CMR 140]
Enforceable by State-only

(6) The licensee shall retain records of all required monitoring data and support information for a period of at least six (6) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the Part 70 license. The records shall be submitted to the Department upon written request or in accordance with other provisions of this license; [06-096 CMR 140]

(7) The licensee shall comply with all terms and conditions of the air emission license. The submission of notice of intent to reopen for cause by the Department, the filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the

licensee for the renewal of a Part 70 license or amendment shall not stay any condition of the Part 70 license. [06-096 CMR 140]

(8) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:

A. perform stack testing under circumstances representative of the facility's normal process and operating conditions:

1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions;

2. to demonstrate compliance with the applicable emission standards; or

3. pursuant to any other requirement of this license to perform stack testing.

B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and

C. submit a written report to the Department within thirty (30) days from date of test completion.

[06-096 CMR 140] **Enforceable by State-only**

(9) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicates emissions in excess of the applicable standards, then:

A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and

B. the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were

intervening days during which no violation occurred or that the violation was not continuing in nature; and

C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

[06-096 CMR 140]

Enforceable by State-only

(10) The licensee shall maintain records of all deviations from license requirements. Such deviations shall include, but are not limited to malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emission unit itself that is not consistent with the terms and conditions of the air emission license.

A. The licensee shall notify the Commissioner within 48 hours of a violation of any emission standard and/or a malfunction or breakdown in any component part that causes a violation of any emission standard, and shall report the probable cause, corrective action, and any excess emissions in the units of the applicable emission limitation;

B. The licensee shall submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component part causes a violation of any emission standard, together with any exemption requests.

Pursuant to 38 M.R.S.A. § 349(9), the Commissioner may exempt from civil penalty an air emission in excess of license limitations if the emission occurs during start-up or shutdown or results exclusively from an unavoidable malfunction entirely beyond the control of the licensee and the licensee has taken all reasonable steps to minimize or prevent any emission and takes corrective action as soon as possible. There may be no exemption if the malfunction is caused, entirely or in part, by poor maintenance, careless operation, poor design or any other reasonably preventable condition or preventable equipment breakdown. The burden of proof is on the licensee seeking the exemption under this subsection.

C. All other deviations shall be reported to the Department in the facility's semiannual report.

[06-096 CMR 140]

(11) Upon the written request of the Department, the licensee shall establish and maintain such records, make such reports, install, use, and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 CMR 140]

(12) The licensee shall submit semiannual reports of any required periodic monitoring. All instances of deviations from Part 70 license requirements must be clearly identified in such reports. All required reports must be certified by a responsible official. [06-096 CMR 140]

(13) The licensee shall submit a compliance certification to the Department and EPA at least annually, or more frequently if specified in the applicable requirement or by the Department. The compliance certification shall include the following:

(a) The identification of each term or condition of the Part 70 license that is the basis of the certification;
(b) The compliance status;
(c) Whether compliance was continuous or intermittent;
(d) The method(s) used for determining the compliance status of the source, currently and over the reporting period; and
(e) Such other facts as the Department may require to determine the compliance status of the source;
[06-096 CMR 140]

SPECIFIC CONDITIONS

(14) The following shall apply to the conditions in this order as appropriate, unless it is stated otherwise for such unit: [Air License A-724-71-A-N & 06-096 CMR 140]:

A. A 24-hour block average basis shall be calculated as the arithmetic average of not more than 24 and not less than 8 one (1) hour block average periods. Only one 24-hour block average shall be calculated for one day, beginning at midnight. Any hour that has been impacted by a start-up or shut down shall not be included in the 24-hour block average. This refers to the ppm limits of Condition (16).

B. A 3-hour block average basis shall be calculated at the arithmetic average of not more than 3 one (1) hour block average periods. No more than eight 3-

hour block averages shall be calculated for one day. One 3-hour block average shall be calculated for the period from midnight to 3:00 a.m., one from 3:00 a.m. to 6:00 a.m., one from 6:00 a.m. to 9:00 a.m., etc. Any hour that has been impacted by a start-up or shut down shall not be included in the 3-hour block average.

C. A 30-day rolling average basis shall be calculated as the arithmetic average of not more than 30 twenty-four (24) hour block averages, made up of data from 30 consecutive operating days.

D. A 6-minute block average basis shall be calculated as the arithmetic average of 24 consecutive fifteen second block average periods. No more than 10 six-minute block averages shall be calculated for any one-hour period.

(15) Combustion Turbine [Air License A-724-71-A-N & 06-096 CMR 140]

A. The combustion turbine shall consist of a combustion turbine followed by a heat recovery steam generator (HRSG).

B. Turbine #1
1. Visible emissions from the turbine shall not exceed 20% opacity, measured as 6-minute block averages, except for one 6-minute block average period per hour of not more than 27% opacity. Compliance with the opacity standard shall be done in accordance with EPA Reference Method 9 when requested.
2. RPI shall operate a Selective Catalytic Reduction (SCR) system to reduce NOx emissions.
3. The exhaust from the combustion turbine and HRSG shall be vented through a 150 foot above ground level stack.

(16) Emissions from the combustion turbine shall not exceed the following limits when firing natural gas in the turbine generator during all times, except for periods of startup/shutdown times as defined in Condition (29):

Pollutant	Load	ppmdv	ppmdv Avg Time	lb/hr	Control Technology
PM	All	--	--	13.7	Natural gas only
PM_{10}	All	--	--	13.7	Natural gas only
SO_2	All	--	--	10.8	Natural gas only (2gr/100 scf)
NOx	All	3.5 (corrected to 15% O_2)	24 hr block avg	25.0	DLN Technology & SCR

CO	All	15 (corrected to 15% O_2)	24 hr block avg	53.2	Good Combustion
VOC	All	--	--	3.1	Good Combustion control
Ammonia	All	10 (corrected to 15% O_2)	24 hr block avg	26	--

[Air License A-724-71-A-N & 06-096 CMR 140, BPT]

(17) Compliance with the PM and PM_{10} lb/hour emission limits shall be determined through stack test using EPA Methods 1-5. [06-096 CMR 140, BPT]

(18) Compliance with the SO_2 lb/hour emission limit shall be demonstrated by firing rate and by fuel sample analysis of the natural gas' sulfur content as required by NSPS Subpart GG. Per the revised sections of 40 CFR Part 60 Subpart GG, RPI shall monitor the sulfur content of the incoming natural gas only if there is a change in supplier. [40 CFR Part 60, Subpart GG]

(19) RPI is required to operate CEMs and shall meet the following conditions:

(a) Compliance with the NOx, CO, and ammonia ppmdv emission limits shall be demonstrated by the use of continuous emission monitors (CEMs). The monitors shall meet the criteria of the appropriate performance specification of 40 CFR Part 60 Appendix B&F, and Part 75, appendices A&B. The NOx, CO, and ammonia lb/hour emission limits shall be demonstrated through stack testing upon Department request.

(b) RPI shall monitor and record the following periodic monitors as specified:

Periodic Monitoring for the Combustion turbine	**Monitor**	**Record**
turbine natural gas firing rate	flow meter	Once per hour
electric load level	electronic monitor	Once per shift
turbine air inlet temperature	temp probe	Once per shift
catalyst bed temperature	temp probe	Once per shift

(20) Pursuant to 40 CFR, Part 60, Subpart GG, the Turbine is subject to the following: RPI shall continuously monitor and record the fuel consumption being fired into the turbine on an hourly block average basis. Records shall be maintained according to Condition (8) and 40 CFR Part 60, Subpart GG.
[40 CFR Part 60, Subpart GG]

(21) RPI shall limit emissions from the 4.5 MMBtu/hr natural gas-fired waterbath heater to the following:

Pollutant	lb/MMBtu	Emission rate (lb/hour)
PM	0.12	0.04
PM_{10}	--	0.04
SO_2	--	0.01
NOx	--	0.44
CO	--	0.37
VOC	--	0.03

Compliance with the above emission limits shall be demonstrated by stack testing upon the Department's request. Visible emissions from the water heater shall not exceed 10% opacity on a 6-minute block average.

[Air License Amendment A-724-71-C-M & 06-096 CMR 140, BPT]

(22) **NSPS Standby Generator**

A. Standby Generator shall fire only diesel fuel with a maximum sulfur content not to exceed 500 ppm. [40 CFR 60.4207(a)]

B. Beginning October 1, 2010, Standby Generator shall fire only diesel fuel with a maximum sulfur content not to exceed 15 ppm. [40 CFR 60.4207(b)]

C. Standby Generator shall be limited to 100 hr/yr of operation for maintenance checks and readiness testing. Standby Generator shall be limited to 500 hours per year of total operation. Both of these limits are based on a 12 month rolling total. Compliance shall be demonstrated by a written log of all generator operating hours. [40 CFR 60.4211(E) and 06-096 CMR 115, BACT]

D. Standby Generator shall be equipped with a non-resettable hour meter. [40 CFR 60.4209(a)]

E. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Standby Generator	PM	0.12	06-096 CMR 103(2)(B)(1)(a)

F. Emissions shall not exceed the following [06-096 CMR 115, BPT]:

Emission Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Standby Generator	0.23	0.23	0.53	22.5	0.63	0.56

G. Standby Generator is subject to PM, CO, and NO_x + VOC emission requirements set forth in 40 CFR 60, Subpart IIII. Compliance with these emission requirements shall be demonstrated by certification from the manufacturer that this engine class meets the appropriate Tier standards. [40 CFR 60, Subpart IIII]

H. RPI shall operate and maintain Standby Generator in accordance with the manufacturer's written instructions. Facility shall not change settings that are not approved in writing by the manufacturer. [40 CFR 60.4211(a)]

I. Visible emissions from the Standby Generator shall each not exceed 20% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period. [06-096 CMR 101]

(23) The emergency diesel fire pump shall be limited in operation to 500 hours per year which will be equipped with a non-resettable elapsed time meter. The generator will operate with low sulfur diesel oil with a maximum sulfur content of 0.05% by weight. RPI shall keep fuel receipts to show compliance with the sulfur content limit. The emergency diesel fire pump shall be operated only during emergency situations that would require the pump to operate to fight a fire at the facility or for maintenance purposes to assure that the system is in working order.
[A-724-71-A-N & 06-096 CMR 140, BPT]

(24) Visible emissions from the exhaust of the emergency diesel fire pump and the emergency standby generator, each shall not exceed 20% opacity, measured as 6 minute block averages, except for no more than two (2) six (6) minute block averages in a 3-hour period. [a-724-71-A-N , 06-096 CMR 101]

(25) The facility shall be designed, constructed, and operated consistent with the representation of the facility in the PSD permit application.
[06-096 CMR 140, BPT]

(26) This facility shall comply with the requirements of the Federal New Source Performance Standards 40 CFR 60, Subparts A (General provisions), and Subpart

GG (Stationary Gas Turbines). RPI shall comply with the notification and recordkeeping requirements of 40 CFR Part 60.7. [40 CFR Part 60 Subpart GG]

(27) RPI is subject to the requirements of the Federal Acid Rain Program found in 40 CFR Parts 72 through 78. Compliance with all applicable provisions of these regulations is required. [40 CFR Part 70-78]

(28) RPI shall obtain and hold in the EPA Allowance Management System, sufficient Acid Rain allowances for each ton of SO_2 emitted annually in accordance with the requirements of 40 CFR, Part 72. [40 CFR Part 72]

(29) Turbine Startup/ Shutdown [A-724-71-A-N & 06-096 CMR 140, BPT]

A. RPI shall minimize emissions from the gas turbines to the maximum extent practicable during startup and shutdown, under maintenance or adjustment conditions, during equipment cleaning conditions, and during initial gas turbine commissioning by following proper operating procedures to minimize the emission of air contaminants to the maximum extent practical.

1. Turbine start-up shall be defined as that period of time from initiation of combustion turbine firing until the unit reaches steady state load operation. Steady state operation shall be reached when the combustion turbine reaches 50% base load and the steam turbine is declared available for load changes. Start-up shall be completed as soon as practicable, but in no case shall the period exceed 300 minutes. RPI shall track and record all start-up times and duration. Records on start-ups lasting longer than 240 minutes shall include an explanation of the circumstances that led to the longer start-up.

2. Turbine shutdown shall be defined as that period of time from steady state operation to cessation of combustion turbine firing. This period shall not exceed 60 minutes. RPI shall track and record all shut down times and duration.

3. RPI shall meet the following numerical emission limits during startups:
   - CO emissions during the periods of startup and shutdown shall not exceed 1000 ppmvd, corrected to 15% O_2 averaged over the duration of the startup/shutdown.
   - NOx emissions during the periods of startup and shutdown shall not exceed 90 ppmvd, corrected to 15% O_2 averaged over the duration of the startup/shutdown.

4. Visible emissions from the turbine during start-up and shut down conditions shall not exceed 30% opacity on a six minute block average basis. Compliance shall be demonstrated in accordance with EPA reference Method 9 on a six minute block average, as defined in Condition (14)(D) of this license.

(30) Ammonia will not be injected into the HRSG during start-up or shutdown unless the catalyst bed is at, or above, the manufacturer's specified minimum operation temperature. [06-096 CMR 140, BPT]

(31) **Continuous Emission Monitoring System (CEMS)**
The CEMS required by this license shall be the primary means of demonstrating compliance with emission standards set by this Order, statute, state or federal regulation, as applicable. The licensee shall comply with the following:
[A-724-71-A-N & 06-096 CMR 140, BPT]

A. **Performance Specifications**
All CEMS shall meet the sampling and performance criteria specified in 40 CFR Part 51 Appendix P, and shall be operated in accordance with 40 CFR Part 60 Appendix F and 06-096 CMR 117 of the Departments regulations.

1. Conduct Relative Accuracy Testing (RATA) and/or Performance Audits in accordance with 06-096 CMR of the Department's regulations.
2. Develop and maintain an updated quality assurance plan for all CEMS in accordance with 40 CFR Part 60 Appendix F and 06-096 CMR 117 of the Department's regulations. RPI may substitute quarterly linearity tests as specified in Part 75 in lieu of Part 60 quarterly CGA. [06-096 CMR 117]

B. **Recordkeeping**
For all of the continuous emission monitoring (CEMS) and recording required by this license, the licensee shall maintain records of the most current six-year period and the records shall include:

1. Documentation which shows monitor operational status during all source operating time, including specifics for calibration and audits; and
[06-096 CMR 117]
2. A complete data set of all monitored parameters as specified in this license. All parameter records shall be made available to the Bureau of Air Quality upon request.
[06-096 CMR 117]

3. For all CEMS, the records shall include:

a. Documentation that all CEMS are continuously accurate, reliable and operated in accordance with 06-096 CMR 117, 40 CFR Part 51, Appendix P, and 40 CFR Part 60, Appendices B and F; [06-096 CMR 117]

b. Records of all measurements, performance evaluations, calibration checks, and maintenance or adjustments for each CEMS as required by 40 CFR Part 51 Appendix P; [06-096 CMR117]

(32) **Quarterly Reporting**

The licensee shall submit a Quarterly Report to the Bureau of Air Quality within 30 days after the end of each calendar quarter, detailing the following, for the control equipment, parameter monitors, Continuous Emission Monitoring Systems (CEMS) or Continuous Opacity Monitoring Systems (COMS) required by this license. [06-096 CMR 117]

A. All control equipment downtimes and malfunctions;

B. All CEMS or COMS downtimes and malfunctions;

C. All parameter monitor downtimes and malfunctions;

D. All excess events of emission and operational limitations set by this Order, Statute, state or federal regulations, as appropriate. The following information shall be reported for each excess event;

1. Standard exceeded;
2. Date, time, and duration of excess event;
3. Amount of air contaminant emitted in excess of the applicable emission standard expressed in the units of the standard;
4. A description of what caused the excess event;
5. The strategy employed to minimize the excess event; and
6. The strategy employed to prevent reoccurrence.

E. A report certifying there were no excess emissions, if that is the case.

(33) **Semiannual Reporting** [06-096 CMR 140]

A. The licensee shall submit semiannual reports every six months to the Bureau of Air Quality. The semiannual reports are due on **January 31st** and **July 31st** of each year. The facility's designated responsible official must sign this report.

B. The semiannual report shall be considered on-time if the postmark of the submittal is before the due date or if the report is received by the DEP within seven calendar days of the due date.

C. Each semiannual report shall include a summary of the periodic and CAM monitoring required by this license.

D. Each semiannual report shall include the annual capacity factor of each unit for each fuel.

E. All instances of deviations from license requirements and the corrective action taken must be clearly identified and provided to the Department in summary form for each six-month interval.

(34) **Annual Compliance Certification**

RPI shall submit an annual compliance certification to the Department in accordance with Standard Condition (13) of this license. The annual compliance certification is due January 31 of each year. The facility's designated responsible official must sign this report.

The annual compliance certification shall be considered on-time if the postmark of the submittal is before the due date or if the report is received by the DEP within seven calendar days of the due date. Certification of compliance is to be based on the stack testing or monitoring data required by this license. Where the license does not require such data or the license requires such data upon request of the Department and the Department has not requested the testing or monitoring, compliance may be certified based upon other reasonably available information such as the design of the equipment or applicable emission factors.
[06-096 CMR 140]

(35) **Annual Emission Statement**

In accordance with Emission Statements, 06-096 CMR 137, the licensee shall annually report to the Department the information necessary to accurately update the State's emission inventory by means of:

A. A computer program and accompanying instructions supplied by the Department;

or

B. A written emission statement containing the information required in 06-096 CMR 137.

Reports and questions should be directed to:

Attn: Criteria Emission Inventory Coordinator
Maine DEP

Reports and questions should be directed to:

Attn: Criteria Emission Inventory Coordinator
Maine DEP
Bureau of Air Quality
17 State House Station
Augusta, ME 04333-0017

Phone: (207) 287-2437

The emission statement must be submitted no later than July 1 or as otherwise specified in 06-096 CMR 137.
[06-096 CMR 137]

(36) The licensee is subject to the State regulations listed below.

Origin and Authority	Requirement Summary	Enforceability
06-096 CMR 102	Open Burning	-
06-096 CMR 109	Emergency Episode Regulation	-
06-096 CMR 110	Ambient Air Quality Standard	-
06-096 CMR 116	Prohibited Dispersion Techniques	-
38 M.R.S.A. §585-B, §§5	Mercury Emission Limit	Enforceable by State-only

(37) **Units Containing Ozone Depleting Substances**
When repairing or disposing of units containing ozone depleting substances, the licensee shall comply with the standards for recycling and emission reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioning units in Subpart B. An example of such units include refrigerators and any size air conditioner that contain CFCs.
[40 CFR, Part 82, Subpart F]

(38) The licensee is subject to all applicable requirements of 40 CFR Part 68 (Risk Management Plan).

(39) **New Source Review**
RPI is subject to all previous New Source Review (NSR) requirements summarized in this Part 70 air emissions license and remain in effect even if this 06-096 CMR 140 Air Emissions License, A-724-70-D-R/A, expires.

Department takes final action on the renewal application of the Part 70 license. An existing source submitting a complete renewal application under 06-096 CMR 140 prior to the expiration of the Part 70 license will not be in violation of operating without a Part 70 license. **Enforceable by State-only**

(41) **Certification by a Responsible Official**
All reports (including quarterly reports, semiannual reports, and annual compliance certifications) required by this license to be submitted to the Bureau of Air Quality must be signed by a responsible official. [06-096 CMR 140]

DONE AND DATED IN AUGUSTA, MAINE THIS 19th DAY OF February 2009.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: James P. Brooks for
DAVID P. LITTELL, COMMISSIONER

The term of this license shall be five (5) years from the signature date above.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: June 27, 2007
Date of application acceptance: July 11, 2007

Date filed with the Board of Environmental Protection: _____

This Order prepared by Edwin Cousins, Bureau of Air Quality.